A Comprehensive Plan for Railroad Consolidation

BY

JOHN E. OLDHAM

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With Supplementary Tables and Maps

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No feature of the proposed railroad legislation has attracted more attention than that which has to do with the consolidation of the several lines into a few strong systems so formed as to preserve competition and best serve the public—to merge the weak with the strong, and thus make the whole transportation structure dependable. The plan for railroad consolidations presented in the accompanying article was worked out in detail after many months of wide research and careful study, by an experienced business man—John E. Oldham, a member of the firm of Merrill, Oldham & Company, bankers, of Boston. In the article Mr. Oldham explains the purposes which would, in his opinion, be accomplished by the adoption of a comprehensive plan for consolidations and presents the reasons for his conclusions.—THE EDITOR.

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A Comprehensive Plan for Railroad Consolidations

The necessity for further consolidation of the railroads of the country has been very generally admitted. It was recognized by Director General Hines in his speech before the New York Bar Association on January 7th of this year when he said:

> "I believe there must be fundamental changes which will consolidate railroads into a few great systems. * * * The argument has been urged that this would be difficult to accomplish but I have not the slightest doubt that it can be accomplished * * * and I am convinced that it is an absolutely necessary step if government ownership is to be permanently avoided."

It was recognized by the business men of the country by an overwhelming majority vote, when the United States Chamber of Commerce called for their views in Referendum No. 28. It was recognized by the House of Representatives when on November 17th it passed the Esch Bill—H. R. 10453—containing a clause providing that the Interstate Commerce Commission shall have authority to permit the consolidation, unification or merger by purchase, lease, stock control or in any other way of two or more carriers or the pooling of their traffic, earnings or facilities to the extent that the Interstate Commerce Commission indicates will be in the interest of the public. It was recognized by the United States Senate when on December 20th it passed the Cummins Bill—S. 3288—containing a clause providing for consolidations involving all the railroads of the country in accordance with a definite plan to be prepared by a Federal Transportation Board and approved by the Interstate Commerce Commission.

Section 9 of the Cummins Bill reads as follows:

> "In the aforesaid division of the said railways into such systems, competition shall be preserved as fully as possible and wherever practicable the existing routes and channels of trade and commerce shall be maintained. The several systems shall be so arranged that the cost of transportation as between competitive systems and as related to the value of properties through which the service is rendered shall be the same, as far as practicable, so that the systems can employ uniform rates in the movement of competitive traffic and under efficient management earn substantially the same rate of return upon the value of the railway properties involved in the comparison."

PURPOSES OF THE GROUPING

Such a comprehensive plan has been considered impracticable by some on the ground that the railroads of the country could not be so combined as to fulfill all the purposes contemplated without seriously disturbing railroad relationships already well established or even disrupting some of the present strong systems.

For the purpose of meeting this objection and to show that the proposal is entirely practicable, substantially all of the Class I roads of the country have been tentatively grouped into fourteen systems. There is no claim that this number of systems, or the suggested composition of the systems, is the only way or the best way to combine the railroads to accomplish the results contemplated by the bill. The primary purpose of the grouping is not to fix the exact number of systems or to determine definitely the particular roads which should be included in each system, but rather to show—

(*a*) The possibility of bringing together the railroads into large competitive groups without seriously disturbing relationships already established.

(*b*) That with roads so combined there would be little disparity in traffic and operating conditions among the separate systems competing in the same territory.

(*c*) That these systems under uniform rates would be

> able to earn substantially the same rate of return on their property investments, if fairly and uniformly valued.

The building up of efficient and strong transportation systems by consolidating companies with closely affiliated traffic relations is not a new policy. It is a practice which has been going on for many years, and development along these lines is already farther advanced than is generally realized. As of June 30, 1916, thirty railroad companies in combination with other companies which they controlled directly through ownership of stock or indirectly through stock owned by subsidiary companies constituted systems which handled approximately 87 per cent of the traffic of the country.

A list of these thirty systems, including a statement of the number of roads controlled by each with the combined mileage and annual gross operating income, is given in Table II on pages 20-23. The statements in Tables III and IV on pages 21 and 22 cover similar data for the remaining Class I roads. A summary of all the roads of the country is given in Table V on page 23.

The centralization of control already established shows the direction which consolidations were taking when they were interrupted in 1903 by the decision of the United States Supreme Court in the Northern Securities case, and also indicates the logical basis from which to proceed in undertaking to make further consolidations with a view to bringing all of the roads into a limited number of systems.

Proposed Tentative Grouping

To avoid disturbing established relationships the proposed consolidations are built around the larger systems of the country and for the most part represent additions and extensions to such systems. Roads which are controlled either by lease or by stock ownership, or controlled through ownership of stock by subsidiary companies, with few exceptions, are placed with the roads which exercise such control. Where there is joint stock ownership the road is placed in the system with only one of the roads which is in control if the roads exercising joint control are included in separate systems.

The fourteen maps following the text show the proposed systems in colors, the mileage operated, and the gross earnings per mile of each line. Individual roads in each system are numbered so that each can be traced without difficulty.

The proposed systems are segregated into three general groups. The mileage of each group is confined as far as practicable to one of the three classification districts—the Eastern, the Southern, and the Western. There are four systems in the Eastern district, three in the Southern, and seven in the Western, each of which is briefly described below:

EASTERN DISTRICT

1. *New York Central System*—The New York Central with the seven lines it controls; Boston & Maine; Maine Central; Western Maryland; and three smaller lines.
2. *Buffalo System*—Delaware, Lackawanna & Western; Lehigh Valley; Delaware & Hudson; Erie; Wabash; Pere Marquette; New York, Chicago & St. Louis, and eight smaller lines.
3. *Pennsylvania System* — The Pennslyvania Railroad, the ten lines it controls, and the New York, New Haven & Hartford.
4. *Baltimore-Reading System*—Baltimore & Ohio; Philadelphia & Reading; Central of New Jersey; Chesapeake & Ohio; Norfolk & Western; the lines controlled by these systems, and nine smaller lines.

With one exception all of these systems extend from two or more Atlantic seaports to Chicago and St. Louis.

SOUTHERN DISTRICT

5. *Coast Line-Louisville & Nashville System*—The Atlantic Coast Line; Louisville & Nashville; the lines controlled by these systems; Norfolk & Southern; and two smaller lines.

6. *Southern System*—The Southern and five lines it controls; Chicago, Indianapolis & Louisville; Florida East Coast, and five smaller lines.
7. *Illinois Central-Seaboard System*—The Illinois Central with the two lines it controls; Seaboard Air Line, and four smaller lines.

All of the systems in this district extend from important centers in the south to Cincinnati, Chicago and St. Louis.

WESTERN DISTRICT

8. *Great Northern-Northwestern System* — Chicago & Northwestern with the Chicago, St. Paul, Minneapolis & Omaha which it controls; and the Great Northern.
9. *Milwaukee System*—Chicago, Milwaukee & St. Paul; Minneapolis, St. Paul & Sault Ste. Marie with controlled lines; Duluth, Missabe & Northern; Duluth & Iron Range.
10. *Northern Pacific-Burlington System*—Northern Pacific; Chicago, Burlington & Quincy; Colorado & Southern, and three smaller lines.
11. *Union Pacific System*—The Union Pacific with the four controlled lines; part of the Central Pacific; and the Chicago Great Western.
12. *Rock Island-Missouri Pacific System*—Chicago, Rock Island & Pacific; Missouri Pacific; Denver & Rio Grande; Western Pacific ;Texas & Pacific; El Paso & Southwestern; and Chicago, Peoria & St. Louis.
13. *Santa Fe-Frisco System*—Atchison, Topeka & Santa Fe; St. Louis & San Francisco; International & Great Northern; St. Louis Southwestern; Midland Valley, and lines controlled by these systems.
14. *Southern Pacific System*—The Southern Pacific, including only a part of the Central Pacific, with seven lines it controls; Missouri, Kansas & Texas; Chicago & Alton; Kansas City Southern, and seven smaller lines.

All of the western systems extend from one or more Pacific coast ports to Chicago, each also reaching other important cities as far east as the Mississippi river. Of the Western systems two have southern routes, two central routes and three northern routes. The Rock Island-Missouri Pacific, one of the systems with a central route, would operate also in competition with the Santa Fe-Frisco and Southern Pacific Systems from the southwest to Kansas City, St. Louis, and Chicago.

Included in the proposed fourteen systems are 155 of the 177 Class I roads. The combined average gross operating income of these systems on the basis of statements covering the three-year period ending June 30, 1917, was equal to approximately 95 per cent of the total gross operating income of all of the railroads of the country, and the systems included approximately 90 per cent of the total mileage of the country. The remaining roads are, for the most part, small roads and would be merged eventually with the larger systems with which they have traffic relations and to which they are tributary.

Table I on the following page shows the number of miles operated, the earnings per mile operated, and the gross operating income of each system. A summary is also given showing the total mileage and earnings of the 155 Class I roads included in the several systems, the 22 Class I roads which are not included, and similar data in connection with the Class II and Class III roads.

TABLE I.

Mileage and Income of Proposed Systems.

ASTERN SYSTEMS.	No. of Class I Roads Included.	Number Miles Operated	Earnings per mile Operated	Av. Annual Railway Operating Income	Per Cent Earnings to total of all Roads
York Central	14	16,915	$23,924	$404,681,857	
alo	17	14,484	21,368	309,509,227	
nsylvania	13	13,686	35,341	483,680,461	
imore-Reading	20	14,886	23,924	356,131,001	
Total Eastern systems	64	59,971		$1,554,002,546	45.1
OUTHERN SYSTEMS.					
t Line—L. & N.	9	13,448	$9,248	$124,360,929	
hern	12	11,586	10,979	127,199,019	
ois Central—Seaboard	8	12,784	10,255	131,100,186	
Total Southern systems	29	37,818		$382,660,134	11.
ESTERN SYSTEMS.					
thwestern—Great Northern	3	17,955	$10,560	$189,597,460	
aukee	6	15,828	9,894	156,603,618	
thern Pacific—Burlington	6	18,308	10,926	200,035,741	
n Pacific	6	10,764	12,342	132,848,579	
Island—Missouri Pacific	9	22,392	9,324	208,778,833	
a Fe—Frisco	11	21,166	10,842	229,470,476	
hern Pacific	21	19,693	11,680	230,011,176	
Total Western systems	62	126,106		$1,347,345,883	39.2
Total all systems	155	223,895		3,284,008,563	95.3

SUMMARY—ALL ROADS IN THE UNITED STATES.

	Mileage	Gross Operating Income	Per cent Earnings to total of all roads
s I Roads—Included in proposed systems, 155	223,895	$3,284,008,563	95.3
s I Roads—Not included in proposed systems, 22	6,237	59,628,177	1.7
s II and Class III Roads—partly estimated	17,322	103,411,445	3.
Total—All roads	247,454	3,447,048,185	100.

A study of these systems shows clearly that such relationships of ownership and control as it may be desirable to retain need not be disturbed by consolidations effected along these lines, and further that consolidations made in this way will meet the requirements of the Cummins bill in the matter of preserving competition and maintaining "the existing channels of trade and commerce."

SIMILARITY OF TRAFFIC AND OPERATION

By combining the operating and traffic statistics of all the roads included in each consolidation, a statement for each system is obtained from which it is possible to determine with reasonable accuracy the similarity of traffic and operating conditions among the systems in each group, and the ability of the several systems to compete under uniform rates and to earn substantially the same rate of return on invested capital if the properties are uniformly and fairly valued and correspondingly capitalized.

The statements which have been prepared for these purposes are given in detail in tables VI and VII on pages 25 and 27.

They cover especially—

1. Earnings per mile of road operated.
2. The proportionate parts of the gross operating income derived from the several kinds of traffic handled—passenger, freight and miscellaneous; the classification of tonnage, showing percentages of the different kinds of commodities to total tonnage.
3. The average rate per ton per mile and the average rate per passenger per mile.
4. The ratio of cost of operation to gross operating income.

In general, these figures show clearly that the majority of the roads in each group operate under much the same conditions, for there is a great similarity in earnings per mile operated, in the proportionate amounts of revenue derived from passenger and freight traffic, and in the character of the commodities which make up the tonnage. Furthermore, there is but little difference in the average rates received from both competitive and non-competitive traffic considered together or in the operating results obtained from handling the traffic treated as a whole.

Between the systems in each district there is but little difference in the operating ratio—the proportionate part of gross operating income required for cost of operation, including taxes and maintenance, maintenance being standardized to correspond in each case to the average amount of gross operating income charged to operating expense by the larger dividend-paying roads in each district. The operating ratio of the four systems in the Eastern district on this basis varies from 72.1 per cent to 77 per cent, a difference of 4.9 per cent; among the three systems of the Southern district it varies from 71.2 to 72.4, a difference of 1.2; among the seven systems in the Western district it varies from 67.9 to 72.8, a difference of 4.9.

Considered in connection with the similarity of traffic and the uniformity of rates the small variation in the cost of operation is important and significant. Assuming that roads handling the same kind and amount of traffic require much the same facilities and that these facilities have much the same value, the small difference in cost of operation, represented by a sum less than 5 per cent of the gross operating income, indicates that the rate of return on property investment considered on this basis would vary not more than one per cent; that the rate of return of the most favored systems would be not more than one-half of one per cent above the average; and that of the least favored not more than one-half of one per cent below the average. The conclusion may be reached, therefore, that the railroads of the country can be combined into competitive groups in such a way as to meet the requirements outlined in Section 9 of the Cummins bill insofar as uniformity of traffic and operating conditions are concerned and in effecting these combinations as already stated, the existing relations of ownership and control can be very largely preserved.

ADVANTAGES OF CONSOLIDATION

Aside from important economic advantages and other benefits which experience shows can be brought about by greater unification of facilities and more centralized control, such a program of consolidation as proposed will accomplish a number of purposes which have a definite and important bearing upon a satisfactory solution of the railroad problem.

A. It would hasten to bring about the necessary readjustment of capitalization of the roads which are weak financially so that there would be greater uniformity in both the financial and operating conditions of all companies competing in the same territory.

B. With uniformity of capitalization and only a small difference in the cost of operation it would not be necessary to limit the earnings of individual companies in order to create an equality of conditions, and a provision for taking away the excess earnings of the more prosperous roads would not be required.

C. The substantial uniformity of conditions among companies operating in the same territory would also greatly simplify the problems of regulation. With a reasonable number of competing companies similarly capitalized, and operating under similar conditions as to traffic, it would be possible to determine more easily and more accurately the character of service which was being maintained by each company, the efficiency with which each was being operated and the level of rates necessary to sustain the credit of those which were well managed. Rules and regulations, both as to rates and operation, could be made with a clearer conception of their application, and when made with a view to a few companies operating under similar conditions, there would be greater certainty that they would apply with equal fairness and justice to all.

D. Most important of all, with the capitalization of the various companies properly adjusted and equalized, railroad credit generally would be upon a sounder and more satisfactory basis, and there would be greater assurance that the capital necessary to meet the transportation requirements of the country as a whole would be available and obtainable under normal market conditions upon terms which would represent the least cost to the public.

THE REAL RAILROAD PROBLEM

The railroad problem is a problem of credit. The solution of the problem requires that a means of financing be provided for all roads:—for the roads which have been soundly financed in the past and which handle approximately 60 per cent of the traffic of the country; for roads which have been unsoundly financed, which handle not far from 30 per cent of the traffic; and for roads which are weak because unfavorably situated, for the most part the smaller roads which handle less than 10 per cent of the traffic.

The first step necessary to establish railroad credit generally on a sound basis is a policy of rate making which will assure adequate income for the roads which are conservatively capitalized. The establishment of such a policy will, however, hardly do more than restore the credit of the so-called strong roads; it will not sufficiently strengthen the position of the roads which are financially unsound, or those which are less favorably situated, to enable them to obtain capital either readily or economically.

Consolidations of the "weak" with the "strong" roads, as a part of the program to establish credit generally, would, however, fail in their purpose unless made on a basis which fully preserves the credit of the stronger roads. They should be made, therefore, largely on a basis of value determined by earning capacity, with such allowances as may be necessary to meet special conditions in individual cases, and with such adjustments of capitalization on the part of the weak roads, both in form and amount, as may be necessary to establish the right relationship between the capitalization of the strong and the weak roads entering the proposed consolidations.

Unless consolidations are brought about along lines similar to those proposed, railroads which handle a substantial part of the traffic of the country will continue to be financially unsound and unable to meet the demands of the public for satisfactory and adequate service; many of the conditions which in the past have contributed so largely to the difficulties of satisfactory Governmental regulation will be perpetuated, and the result will be that in a few years, as stated by Director-General Hines, "the dissatisfaction of the public will manifest itself through an insistent demand for a radically different plan which is not likely to stop short of outright government ownership."

The problems and obstacles incident to consolidation must be faced for consolidations are bound to be an important factor in any permanent and effective solution of the railroad problem. Whether Congress makes consolidations voluntary or compulsory a comprehensive plan should be prepared under the direction of the Interstate Commerce Commission, or some Board appointed especially for the purpose and this plan should be made with a view to the consistent development of a system of transportation designed to meet the needs of the country considered as a whole; and consolidations from time to time among individual companies should be approved only when in harmony with the general plan finally adopted.

Comparative Statistics
for
Proposed Consolidated Systems.

TABLES II, III, IV and V—OWNERSHIP AND CONTROL OF CLASS I ROADS

Tables II to V are designed to show the concentration of control of the Class I roads of the country based on ownership and lease of properties and stock control. Statements relating to ownership, lease, and control are based largely upon the report of the Interstate Commerce Commission for the year ending June 30, 1916.

Statements of mileage and earnings are based on reports of the Interstate Commerce Commission prepared for the Railroad Administration for use in determining the so-called "Standard Return" under the Federal Control Act, and are annual averages based on the three years ending June 30, 1917.

The total number of Class I roads on the basis of these reports was 177. These roads have been divided into two classes. The first class includes 90 roads, the majority stock of which is outstanding in the hands of the public. These roads might be more properly called systems, for they represent not only mileage owned by the company named, but also mileage leased and mileage which is represented by ownership of securities, as in the case of proprietary companies. The second class includes 87 roads, the majority stock of which is controlled by one or more of the 90 roads or systems.

These 90 roads have been divided into three groups as follows:

Group 1, Table II, includes 30 roads, each having an annual gross operating income of $25,000,000 and upwards;

Group 2, Table III, includes 15 roads, each having an annual gross operating income of more than $10,000,000, but less than $25,000,000.

Group 3, Table IV, includes 45 roads, each having an annual gross operating income of more than $1,000,000, but less than $10,000,000.

Column 1 gives the names of the roads whose stock is outstanding in the hands of the public.

Column 2 requires no explanation.

Column 3 includes the roads which are controlled by stock ownership, by one or more of the roads listed in column 1.

Column 4 is the total of columns 2 and 3.

Column 5 shows the combined miles of road operated by the roads included in column 4.

Column 6 shows the combined gross operating income of roads included in column 4.

Table V shows separately a) the totals of each column for each of the three groups; b) a total of each column for all of the groups; c) the mileage and the gross operating income of Class II and Class III roads; and d) a total for all Class I, II, and III roads.

Columns are also inserted showing for each group and for the Class I and Class II and III roads the percentage of total mileage and of total earnings.

TABLE II.

Group 1—Ownership and Control of Roads Earning $25,000,000 a Year and Upwards.

1 Name of System	2 Number of roads owned	3 Number of roads controlled	4 Total roads in system owned and controlled	5 Combined mileage of roads owned and controlled	6 Combined gross operating income of roads owned and controlled
N. Y. Central	1	9	10	13,331.22	$343,785,402
Boston & Maine	1	—	1	2,286.36	51,913,506
Pennsylvania	1	11	12	11,476.70	405,623,546
N. Y., N. H. & Hartford	1	2	3	2,870.15	88,621,495
D., L. & W.	1	—	1	956.27	48,923,528
Lehigh Valley	1	—	1	1,443.45	47,023,053
Erie	1	2	3	2,396.15	73,197,134
Wabash	1	1	2	3,031.02	42,449,571
Del. & Hudson	1	—	1	883.41	25,411,263
Baltimore & Ohio	1	1	2	4,563.50	110,216,356
Chesapeake & Ohio	1	3	4	2,848.95	59,077,915
Norfolk & Western	1	—	1	2,062.11	53,800,498
Phila. & Reading	1	3	4	1,998.88	92,680,217
Atlantic Coast Line	1	8	9	12,755.01	125,895,041
Southern	1	6	7	9,684.36	107,892,747
Illinois Central	1	2	3	8,071.04	97,818,454
Seaboard	1	—	1	3,445.88	24,926,111
Atchison	1	3	4	11,745.52	139,897,726
St. Louis & San Francisco	1	2	3	6,125.10	64,635,838
Missouri Pacific	1	1	2	7,348.14	66,076,724
Denver & Rio Grande	1	1	2	3,518.64	32,221,710
Chic., R. I. & Pacific	1	1	2	8,297.79	77,988,555
Chic., Mil. & St. Paul	1	—	1	10,221.52	103,164,598
Can. Pac.-M., St. P. & S. St Marie	1	2	3	4,938.10	36,843,497
Northern Pacific	1	7	8	18,916.06	202,039,732
Great Northern	1	—	1	8,094.45	78,548,635
Chic. & Northwestern	1	1	2	9,860.63	111,048,825
Southern Pacific	1	7	8	10,884.31	154,162,290
Union Pacific	1	4	5	9,304.28	117,691,478
Mo., Kan. & Tex.	1	2	3	3,865.04	35,340,021
Totals	30	79	109	197,224.04	$3,018,915,466

TABLE III.

Group 2—Ownership and Control of Roads Earning from $10,000.000 to $25,000,00 a Year.

1 Name of system	2 Number of roads owned	3 Number of roads controlled	4 Total roads in system owned and controlled	5 Combined mileage of roads owned and controlled	6 Combined gross operating income of roads owned and controlled
ine Central	1	—	1	1,219.73	12,328,910
stern Maryland	1	—	1	694.50	10,791,912
re Marquette	1	—	1	2,271.73	20,843,657
ssemer & Lake Erie	1	—	1	204.63	10,362,886
gin, J. & E.	1	—	1	788.78	12,192.426
ffalo, Roch. & Pitts.	1	—	1	586.50	11,667,747
ernational & Gt. No	1	—	1	1,159.50	10,107,915
Louis & Southwestern	1	1	2	1,753.81	12,910,439
Paso Southwestern	1	—	1	1,027.61	10,878,268
xas & Pacific	1	—	1	1,944.82	19,834,671
luth, Missabe & N.	1	—	1	390.06	10,552.080
ic. Gt. Western	1	—	1	1,459.84	15,157,101
ic. & Alton	1	—	1	1,051.86	16,637,024
ns. City Southern	1	1	2	836.51	11,023,296
nn. & St. Louis	1	—	1	1,646.56	10,590,733
Totals	15	2	17	17,036.44	195,879.065

TABLE IV.

Group 3—Ownership and Control of Roads Earning $1,000,000 to $10,000,000 a Year.

1 Name of System	2 Number of roads owned	3 Number of roads controlled	4 Total roads owned and controlled	5 Combined mileage of roads owned and controlled	6 Combined gross operating income of roads owned and controlled
Bangor & Aroostook	1	—	1	631.73	3,955,357
Ulster & Delaware	1	—	1	128.88	1,023,519
Can. Pac. L. in Me.	1	—	1	233.57	1,858,668
Tol., St. L. & Western	1	—	1	453.55	5,560,324
Lehigh & N. E.	1	—	1	295.46	3,065,981
Lehigh & Hudson	1	—	1	96.60	2,053,781
Pitts., Shawmut & No	1	—	1	204.67	1,304,246
Detroit & Mackinac	1	—	1	386.23	1,179,421
Virginian	1	—	1	506.53	7,570,315
Coal & Coke	1	—	1	197.30	1,100,109
Car. Clinchfield & Ohio	1	—	1	271.44	2,854,624
Cin., Ind. & West	1	—	1	321.68	2,477,850
Buffalo & Susquehanna	1	—	1	252.56	1,604,078
Det., Tol. & Ironton	1	—	1	468.96	2,240,724
Ann Arbor	1	—	1	295.68	2,661,519
Pitts. & W. Va.	1	—	1	63.31	1,080,449
Ala. & Vicksburg	1	—	1	142.74	1,701,714
Norfolk Southern	1	—	1	905.15	4,576,621
Chic., Terre Haute So.	1	—	1	373.66	2,657,714
Tenn. Central	1	—	1	294.12	1,619,733
Vicksb'g-Shrevep't & Pac.	1	—	1	171.47	1,667,937
Fla. East Coast	1	—	1	741.04	7,206,392
N. O., Gt. Northern	1	—	1	284.60	1,685,466
Gulf & Ship. Is.	1	—	1	307.56	1,857,087
Atl., Birm. & Atlantic	1	—	1	640.67	3,155,117
Gulf, Mobile & No.	1	—	1	402.56	1,943,797
Midland Valley	1	—	1	381.95	1,918,558
Chic., Peoria & St. L	1	—	1	255.47	1,778,905
Duluth & Iron Range	1	—	1	278.54	6,043,443
San Antonio & Ar. P	1	—	1	727.80	4,003,622
Mo., Okla. & Gulf	1	—	1	333.70	1,465,393
Kan. City, Mex. & Orient	1	—	1	737.62	2,522,892
Mo. & No. Ark.	1	—	1	365.24	1,265,234
La. & Arkansas	1	—	1	282.66	1,587,413
Arizona & New Mex.	1	—	1	111.02	814,709
Bingham & Garfield	1	—	1	30.45	2,198,215
Colo. & Wyoming	1	—	1	46.35	933,991
Cripple Cr. & Colo. Spr	1	—	1	86.65	1,315,632
Denver & Salt Lake	1	—	1	255.46	1,842,314
Nevada Northern	1	—	1	165.10	1,794,607
N. O., Tex. & Mex.	1	1	2	791.98	4,724,883
Spokane International	1	—	1	163.50	809,701
La. Ry. & Navigation	1	—	1	347.85	2,151,347
Dul., Winnepeg & Pac	1	—	1	182.55	1,660,623
Grand Trunk Lines	1	5	6	1,255.65	20,348,184
Totals	45	6	51	15,871.26	$128,842,209

TABLE V.

Summary for Class I, II and III Roads.

1	2 Number of roads owned	3 Number of roads controlled	4 Total roads owned and controlled	5 Combined mileage of roads owned and controlled	6 Per cent mileage owned and controlled	7 Combined gross operating income of roads owned and controlled	8 Per cent of gross operating income
00 or over	30	79	109	197,224.04	79.7	$3,018,915,466	87.6
00 to $25,000,000	15	2	17	17,036.44	6.9	195,879,065	5.7
00 or under	45	6	51	15,871.26	6.4	128,842,209	3.7
	90	87	177	230,131.74	93.	3,343,636,740	97.0
d total for other Class II and III roads				17,321.73	7.	103,411,445	3.
nate total Class I, II and III roads				247,453.47	100.	$3,447,048,185	100.

TABLE VI.—RAILWAY OPERATING INCOME AND EXPENSE

Column 1 gives the name of each consolidated system described in the text.

Column 2 shows the combined mileage of the railroads included in each system.

Column 3 shows the combined annual railway operating income of the railroads included in each system, based on an average for the three years ending June 30, 1917.

Column 4 shows all expenses -of operation (except maintenance) and includes taxes.

Column 5 shows the amount charged for maintenance. As methods of accounting with respect to maintenance differ with different companies, for the sake of uniformity and for the purpose of affording a fairer comparison between individual companies, the maintenance charge has been standardized for each group. For roads in the Eastern District, the amount was determined by taking the same percentage of the gross operating income, 30.8 per cent, that was charged to maintenance by the dividend-paying roads in the district averaged for the test period. The same method was followed in determining the standard of maintenance for the Western and Southern Districts, but the amount varied so little, being 28.2 for the Western roads, and 28.8 for the Southern, that the same figure, 28.2 per cent, was adopted for both Districts.

Column 6 is the total of columns 4 and 5.

Column 7 is the difference between columns 3 and 6.

The percentage figures in each column show the relation of the figures in the same column to gross operating income in column 3.

The figures of mileage, earnings and expenses have been compiled from statements prepared by the Interstate Commerce Commission and filed with the Railroad Administration for use in determining the so-called standard return under the Federal Control Act.

TABLE VI.

Statement of Operating Income and Expenses of Proposed Consolidated Systems.

1	2 Number of miles operated	3 Railway operating income	4 Operating expenses and Taxes (not including maintenance)	5 Maintenance	6 Total operating expense—Taxes and Maintenance	7 Net railway operating income
tern Systems:						
York Central	16,915	$404,681,857 (100%)	$184,732,012 (45.7%)	$124,642,012 (30.8%)	$309,374,024 (76.5%)	$95,307,833 (23.5%)
o	14,484	309,509,227 (100%)	138,531,035 (44.9%)	95,328,842 (30.8%)	233,859,877 (75.7%)	75,649,350 (24.3%)
ylvania	13,686	483,680,461 (100%)	223,460,373 (46.2%)	148,973,582 (30.8%)	372,433,955 (77%)	111,246,506 (23%)
ore-Reading	14,886	356,131,001 (100%)	146,976,516 (41.3%)	109,688,348 (30.8%)	256,664,864 (72.1%)	99,466,137 (27.9%)
hern Systems:						
Line-Lo. & Nash.	13,448	124,360,929 (100%)	53,550,452 (43%)	35,069,782 (28.2%)	88,620,234 (71.2%)	35,740,695 (28.8%)
rn	11,586	127,199,019 (100%)	55,527,337 (43.6%)	35,870,123 (28.2%)	91,397,460 (71.8%)	35,801,559 (28.2%)
Cent'l-Seaboard	12,784	131,100,186 (100%)	58,020,951 (44.2%)	36,970,252 (28.2%)	94,991,203 (72.4%)	36,108,983 (27.6%)
ern Systems:						
Nor.-Northwes'n	17,955	189,597,460 (100%)	82,354,013 (43.5%)	53,466,484 (28.2%)	135,820,497 (71.7%)	53,776,963 (28.3%)
kee	15,828	156,603,618 (100%)	67,899,861 (43.4%)	44,162,220 (28.2%)	112,062,081 (71.6%)	44,541,537 (28.4%)
rn Pacific	18,308	200,035,741 (100%)	79,981,114 (40%)	56,410,080 (28.2%)	136,391,194 (68.2%)	63,644,547 (31.8%)
Pacific	10,764	132,848,579 (100%)	52,589,349 (39.7%)	37,463,299 (28.2%)	90,052,648 (67.9%)	42,795,931 (32.1%)
sland-Mis. Pac.	22,392	208,778,833 (100%)	92,511,693 (44.3%)	58,875,631 (28.2%)	151,387,324 (72.5%)	57,391,509 (27.5%)
e-Frisco	21,166	229,470,476 (100%)	92,485,551 (40.3%)	64,710,674 (28.2%)	157,196,225 (68.5%)	72,274,251 (31.5%)
n Pacific	19,693	230,011,176 (100%)	102,541,969 (44.6%)	64,863,152 (28.2%)	167,405,121 (72.8%)	62,606,055 (27.2%)

TABLES VII AND VIII—CLASSIFICATION OF TONNAGE AND STATISTICS OF OPERATION

These tables are designed to show that, in general, systems operating in the same territory handle much the same kind of business, have a similar density of traffic, and operate under substantially the same rates. They serve to amplify the text page 12, and supplement Table VI, which shows the similarity in the cost of operation.

The figures are compiled from the Interstate Commerce Commission reports for the year ending June 30, 1916, complete figures for the "test period" not being available, with the exception of earnings per mile operated, which is an average for three years ending June 30, 1917.

TABLE VII.

Classification of Tonnage for Year Ending June 30, 1916.

Percentages of tons of different kinds of products to total tonnage.

	Agriculture.	Animals	Mines.	Forests.	Manufactures.	Miscellaneous.	L. C. L.	Total.
1	2	3	4	5	6	7	8	9
rn Systems:								
ork Central	9.2	2.5	54.4	6.9	21.9	2.8	2.3	100
	9.6	2.1	58.9	3.8	18.5	3.5	3.6	100
vania	6.4	1.8	56.5	5.5	18.8	4.7	6.3	100
re-Reading	4.5	1.	67.	4.4	14.6	4.8	3.7	100
ern Systems:								
ine-Louisv'le & Nashv'le	9.6	1.8	52.9	14.7	13.5	2.	5.5	100
n	11.1	1.8	37.	23.3	16.2	4.6	6.	100
ral-Seaboard	18.8	2.6	36.4	19.3	16.6	2.2	4.1	100
rn Systems:								
orthern-Northwestern	20.8	3.7	45.6	12.	11.9	1.5	4.5	100
ee	12.5	2.6	57.5	12.	8.9	2.8	3.7	100
n Pacific	22.2	5.	38.1	13,2	13.5	2.5	5.5	100
acific	27.	6.2	31.6	13.3	15.9	1.6	4.4	100
and-Missouri Pacific	18.	4.2	43.6	12.	15.9	1.9	4.4	100
e-Frisco	18.5	3.9	42.1	12.5	17.	1.2	4.8	100
fic	20.	3.8	36.2	16.3	17.1	1.8	4.8	100

TABLE VIII.

Statistics of Operation for Year Ending June 30, 1918.

	Gross earnings per mile road operated.	Percentage of gross operating income				Average receipts per ton per mile	Average receipts per passenger per mile.	Average Number of tons per train mile.
		Freight income.	Passenger income.	Miscellaneous income.	Total.			
1	2	3	4	5	6	7	8	9
Systems:								
Central	$23,924	66.4	22.3	11.3	100	$.00653	$.01960	664
	21,368	79.	12.9	8.1	100	.00634	.01770	634
nia	35,341	67.5	23.8	8.7	100	.00681	.01920	630
-Reading	23,924	80.4	13.	6.6	100	.00524	.01900	834
n Systems:								
e-Louisv'le & Nashv'le	9,248	72.	20.8	7.2	100	.00813	.02150	377
	10,979	69.6	21.4	9.	100	.00836	.02180	409
l-Seaboard	10.255	71.3	20.4	8.3	100	.00686	.02070	480
Systems:								
thern-Northwestern	10,560	69.5	21.	9.5	100	.00794	.02000	539
	9,894	74.8	16.4	8.8	100	.00744	.02070	519
Pacific	10,926	71.4	19.8	8.8	100	.00763	.02060	599
ific	12,342	71.9	20.1	8.	100	.00866	.02120	540
d-Missouri Pacific	9,324	71.9	20.7	7.4	100	.00852	.02000	417
risco	10.842	68.8	23.4	7.8	100	.00898	.02050	433
acific	11,680	62.8	25.	12.2	100	.00931	.02100	450

Index to Maps

Alphabetical List of All Class I Roads.

Roads marked with a star (*) are not shown on the maps or included in the tables, but they would, of course, be included in the complete plan for consolidating all Class I, II and III roads into a limited number of strong competing systems.

NAME OF ROAD.	Map No.	Road No.
Alabama & Vicksburg	6	98
Alabama Great Southern	6	85
Ann Arbor	4	51
*Arizona & New Mexico	—	—
Arizona Eastern	14	149
Atchison, Topeka & Santa Fe	13	107
Atlanta & West Point	7	102
Atlanta, Birmingham & Atlantic	7	90
Atlantic City	4	53
*Atlantic & St. Lawrence	—	—
Atlantic Coast Line	5	76
Baltimore & Ohio	4	3
Baltimore, Chesapeake & Atlantic	3	68
Bangor & Aroostook	1	45
Bessemer & Lake Erie	2	27
*Bingham & Garfield	—	—
Boston & Maine	1	8
Buffalo & Susquehanna	4	63
Buffalo, Rochester & Pittsburg	4	26
*Canadian Pacific Lines in Maine	—	—
Carolina, Clinchfield & Ohio	4	91
Central New England	3	41
Central of Georgia	7	80
Central of New Jersey	4	15
*Central Vermont	—	—
Charleston & Western Carolina	5	96
Chesapeake & Ohio	4	75
Chicago & Alton	14	125
Chicago & Eastern Illinois	13	20
Chicago & Erie	2	33
Chicago & Northwestern	8	110
Chicago, Burlington & Quincy	10	109
*Chicago, Detroit & Canada Grand Trunk Junction	—	—
Chicago Great Western	11	127
Chicago, Indianapolis & Louisville	6	34
Chicago, Milwaukee & St. Paul	9	108
Chicago, Peoria & St. Louis	12	159
Chicago, Rock Island & Gulf	12	150
Chicago, Rock Island & Pacific	12	113

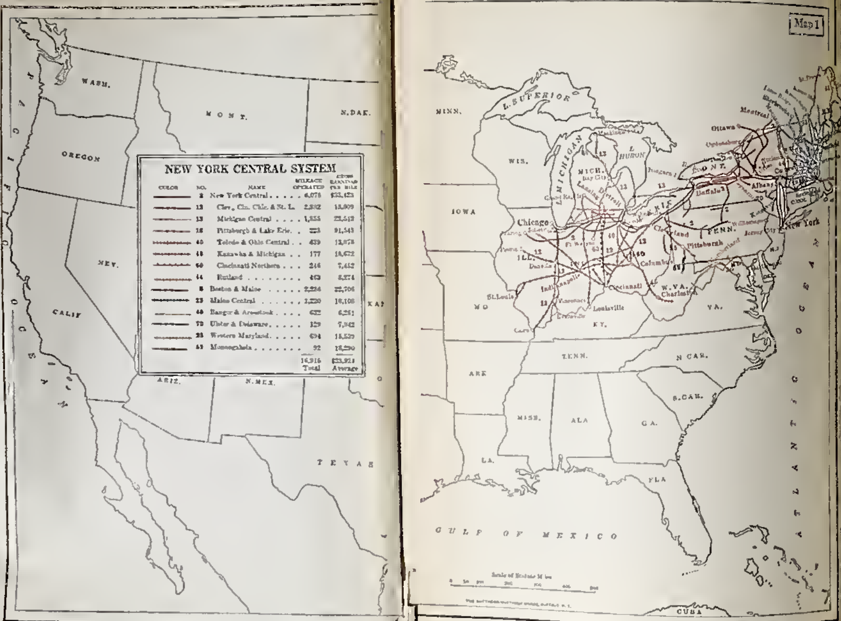
Chicago, St. Paul, Minn. & Omaha	8	122
Chicago, Terre Haute & Southeastern	5	52
Cincinnati, Indianapolis & Western	4	64
Cincinnati, New Orleans & Texas Pacific	6	82
Cincinnati Northern	1	60
Cleveland, Cin., Chi. & St. Louis	1	12
Coal & Coke	4	104
Colorado & Southern	10	135
*Colorado & Wyoming	—	—
Colorado Midland	10	166
*Cripple Creek & Colorado Springs	—	—
Cumberland Valley	3	48
Delaware & Hudson	2	16
Delaware, Lackawanna & Western	2	9
Denver & Rio Grande	12	121
*Denver & Salt Lake	—	—
Detroit & Mackinac	2	67
*Detroit & Toledo Shore Line	—	—
*Detroit, Grand Haven & Milwaukee	—	—
Detroit, Toledo & Ironton	4	55
Duluth & Iron Range	9	138
Duluth, Missabe & Northern	9	129
Duluth, South Shore & Atlantic	9	148
*Duuluth, Winnipeg & Pacific	—	—
El Paso & Southwestern	12	132
Elgin, Joliet & Eastern	2	23
Erie	2	6
Florida East Coast	6	84
Ft. Worth & Denver City	10	140
Galveston, Harrisburg & San Antonio	4	128
Georgia Railroad, Lessee	5	89
Georgia, Southern & Florida	7	92
Grand Rapids & Indiana	3	39
*Grand Trunk Western	—	—
Great Northern	8	111
Gulf & Ship Island	6	94
Gulf, Colorado & Santa Fe	13	126
*Gulf, Mobile & Northern	—	—
Hocking Valley	4	36
Houston & Texas Central	14	139
Houston East & West Texas	14	167
Illinois Central	7	72
International & Great Northern	13	134
Kanawha & Michigan	1	46
Kansas City, Mexico & Orient	14	171
Kansas City Southern	14	133
Lake Erie & Western	2	37

Lehigh & Hudson	2	56
Lehigh & New England	2	49
Lehigh Valley	2	10
Long Island	3	22
Los Angeles & Salt Lake	11	130
Louisiana & Arkansas	14	162
*Louisiana Ry. & Navigation	—	—
Louisiana Western	14	152
Louisville & Nashville	5	73
Louisville, Henderson & St. Louis	5	100
Maine Central	1	25
Michigan Central	1	13
Midland Valley	13	157
Mineral Range	9	160
*Minneapolis & St. Louis	—	—
Minneapolis, St. Paul & Sault St. Marie	9	116
Missouri & Northern Arkansas	14	173
Missouri, Kansas & Texas	14	118
Missouri, Kansas & Texas of Texas (included in Miss., Kan. & Tex.)	14	
Missouri, Oklahoma & Gulf	14	168
Missouri Pacific	12	119
Mobile & Ohio	6	81
Monongahela	1	59
Morgan's Louisiana & Texas R. R. & Steamship Co.	14	143
Nashville, Chattanooga & St. Louis	5	79
*Nevada Northern	—	—
New Orleans & Northeastern	6	87
New Orleans Great Northern	6	97
*New Orleans, Texas & Mexico	—	—
New York Central	1	2
New York, Chicago & St. Louis	2	21
New York, New Haven & Hartford	3	4
New York, Ontario & Western	2	31
New York, Philadelphia & Norfolk	3	42
New York, Susquehanna & Western	2	47
Norfolk & Western	4	74
Norfolk Southern	5	86
Northern Pacific	10	112
Northwestern Pacific	13	145
Oregon Short Line	11	120
Oregon-Washington R. R. & Navigation	11	124
Panhandle & Santa Fe	13	141
Pennsylvania Company	3	5
Pennsylvania Railroad	3	1
Pere Marquette	2	19

Philadelphia & Reading	4	7
Philadelphia, Baltimore & Washington	3	17
Pittsburgh & Lake Erie	1	18
*Pittsburgh & West Virginia	—	—
Pittsburgh, Cincinnati, Chicago & St. Louis	3	5
Pittsburgh, Shawmut & Northern	2	54
Port Reading	4	61
Richmond, Fredericksburg & Potomac	4	88
Rutland	1	44
St. Joseph & Grand Island	11	158
*St. Louis, Brownsville & Mexico	—	—
St. Louis, Iron Mountain & Southern	12	117
St. Louis & San Francisco	13	115
St. Louis-San Francisco of Texas	13	146
St. Louis Southwestern	13	136
St. Louis Southwestern of Texas	13	174
San Antonio & Aransas Pass	14	147
Seaboard Air Line	7	77
Southern	6	71
Southern in Mississippi	6	105
Southern Pacific	14	106
*Spokane International	—	—
Spokane, Portland & Seattle	10	142
Staten Island Rapid Transit	4	65
Tennessee Central	5	99
Texarkana & Fort Smith (included in Kans. City Southern)	14	
Texas & New Orleans	14	144
Texas & Pacific	12	123
Toledo & Ohio Central	1	40
Toledo, Peoria & Western	3	172
*Toledo, St. Louis & Western	—	—
Trinity & Brazos Valley	14	176
Ulster & Delaware	1	70
Union Pacific	11	114
Vicksburg, Shreveport & Pacific	6	165
Virginian	4	83
Wabash	2	14
Washington Southern	4	101
West Jersey & Seashore	3	35
Western Maryland	1	28
Western Pacific	12	137
Western of Alabama	7	103
Wheeling & Lake Erie	4	30
Wichita Falls & Northwestern (included in Mo. Kan. & Tex.)	14	
Wichita Valley	14	177
Yazoo & Mississippi Valley	7	78

MAP 1

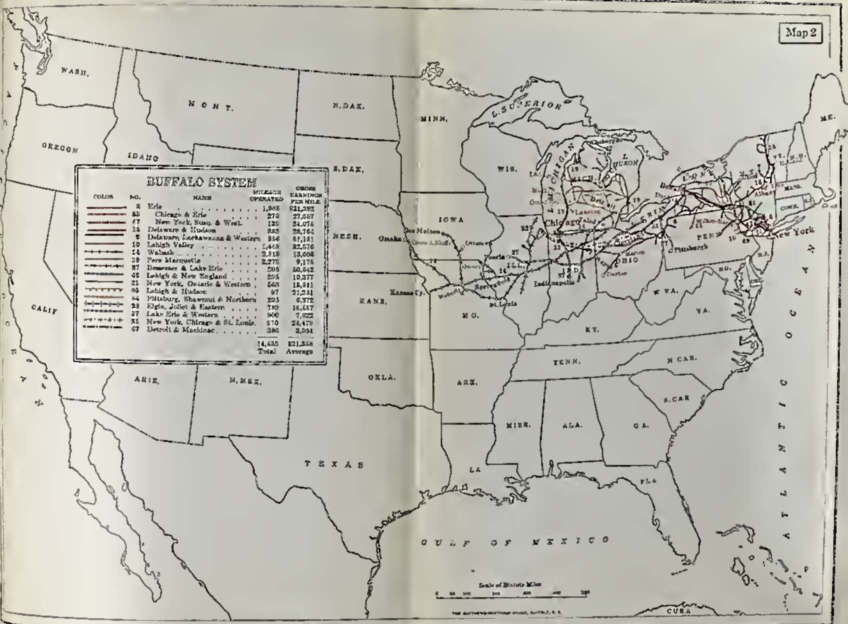
NEW YORK CENTRAL SYSTEM



NEW YORK CENTRAL SYSTEM

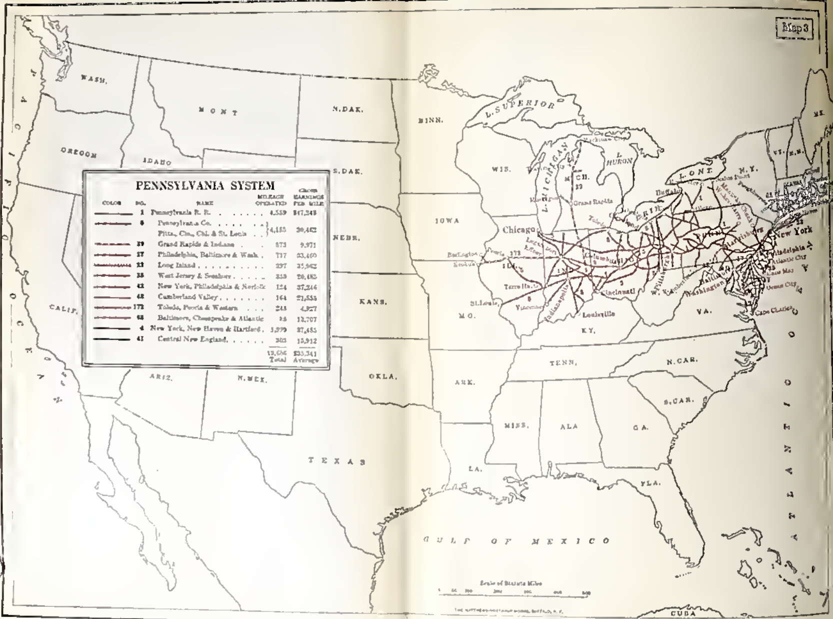
COLOR	NO.	NAME	MILEAGE OPERATED	GROSS EARNINGS PER MILE
━━━━	2	New York Central	6,076	$33,423
━━━━	12	Clev., Cin. Chic. & St. L.	2,392	15,009
━━━━	13	Michigan Central	1,855	22,513
━━━━	16	Pittsburgh & Lake Erie	223	91,545
━━━━	40	Toledo & Ohio Central	439	13,073
━━━━	48	Kanawha & Michigan	177	16,672
━━━━	60	Cincinnati Northern	246	7,452
━━━━	44	Rutland	463	8,274
━━━━	8	Boston & Maine	2,224	22,706
━━━━	23	Maine Central	1,220	10,108
━━━━	46	Bangor & Aroostook	632	6,251
━━━━	72	Ulster & Delaware	129	7,942
━━━━	28	Western Maryland	694	15,529
━━━━	41	Monongahela	92	18,290
			16,916 Total	$23,921 Average

Map 2



BUFFALO SYSTEM

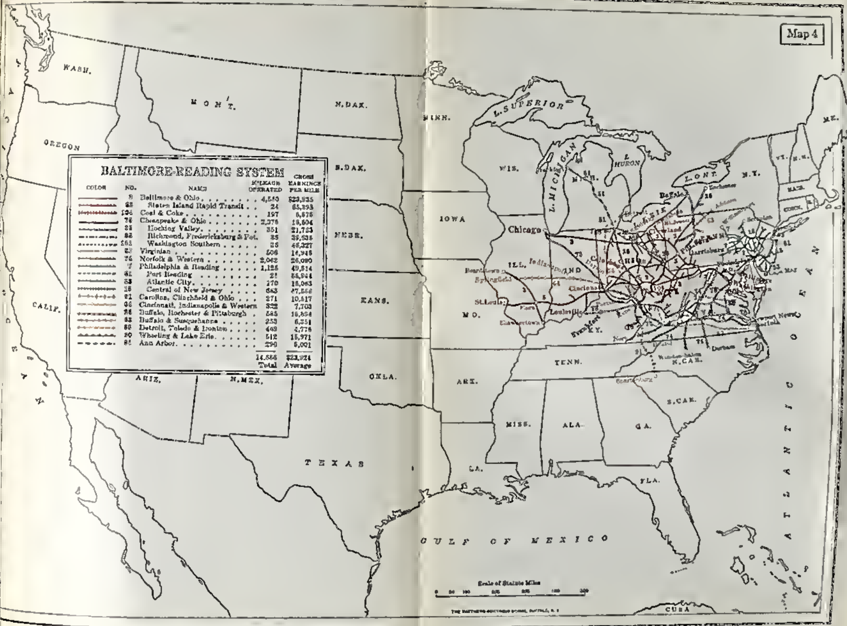
COLOR	NO.	NAME	MILEAGE OPERATED	GROSS EARNINGS PER MILE
—	2	Erie	1,965	$31,292
—	55	Chicago & Erie	270	27,687
—	67	New York, Susq. & West.	139	24,075
—	34	Delaware & Hudson	883	28,764
—	6	Delaware, Lackawanna & Western	956	61,181
—	10	Lehigh Valley	1,448	32,570
—	14	Wabash	2,519	13,608
—	19	Pere Marquette	2,272	9,176
—	37	Bessemer & Lake Erie	205	50,542
—	40	Lehigh & New England	225	19,377
—	21	New York, Ontario & Western	565	15,811
—	36	Lehigh & Hudson	97	21,231
—	84	Pittsburg, Shawmut & Northern	225	5,372
—	23	Elgin, Joliet & Eastern	789	16,657
—	27	Lake Erie & Western	900	7,022
—	31	New York, Chicago & St. Louis	570	24,479
—	67	Detroit & Mackinac	380	3,054
			14,635 Total	$21,338 Average



PENNSYLVANIA SYSTEM

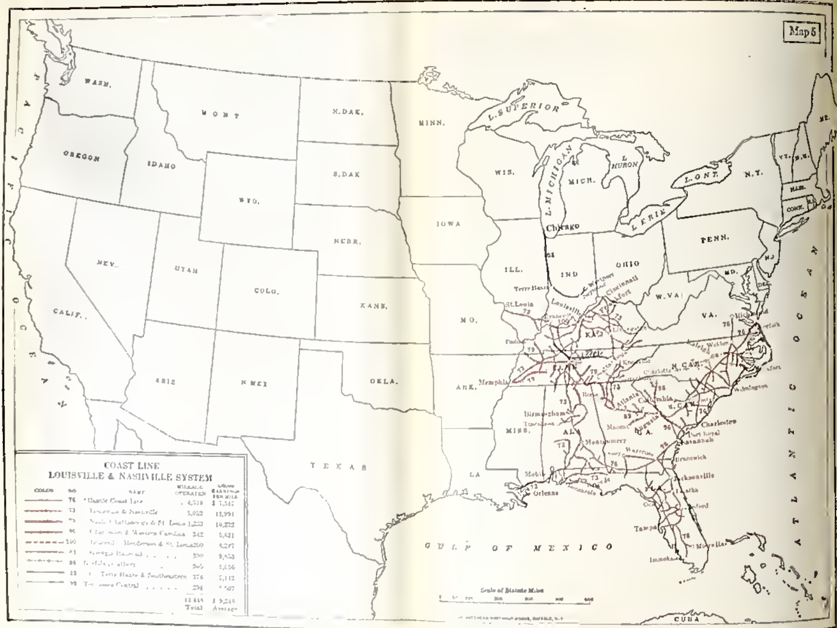
COLOR	NO.	NAME	MILEAGE OPERATED	GROSS EARNINGS PER MILE
—	1	Pennsylvania R. R.	4,559	$47,248
—	5	Pennsylvania Co. Pitts., Cin., Chi. & St. Louis	4,155	30,462
—	39	Grand Rapids & Indiana	573	9,971
—	17	Philadelphia, Baltimore & Wash.	717	33,460
—	22	Long Island	397	35,962
—	38	West Jersey & Seashore	353	20,483
—	42	New York, Philadelphia & Norfolk	124	37,246
—	48	Cumberland Valley	164	21,535
—	172	Toledo, Peoria & Western	248	4,927
—	68	Baltimore, Chesapeake & Atlantic	88	12,707
—	4	New York, New Haven & Hartford	1,999	37,455
—	41	Central New England	303	13,912
			13,056 Total	$35,341 Average

Map 4

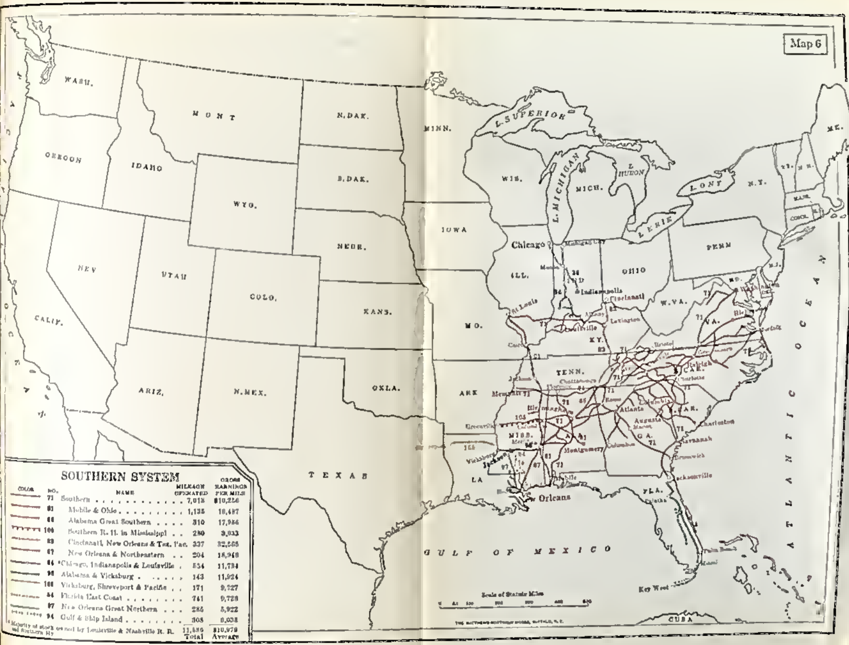


BALTIMORE-READING SYSTEM

COLOR	NO.	NAME	MILEAGE OPERATED	GROSS EARNINGS PER MILE
—	8	Baltimore & Ohio	4,540	$23,935
—	28	Staten Island Rapid Transit	24	65,393
—	124	Coal & Coke	197	6,676
—	76	Chesapeake & Ohio	2,376	16,604
—	35	Hocking Valley	351	21,723
—	82	Richmond, Fredericksburg & Pot.	85	39,535
—	161	Washington Southern	35	46,327
—	67	Virginian	506	14,945
—	76	Norfolk & Western	2,042	26,080
—	7	Philadelphia & Reading	1,125	49,514
—	61	Port Reading	21	65,944
—	83	Atlantic City	170	18,063
—	16	Central of New Jersey	683	47,552
—	71	Carolina, Clinchfield & Ohio	271	10,617
—	96	Cincinnati, Indianapolis & Western	322	7,703
—	34	Buffalo, Rochester & Pittsburgh	585	16,894
—	43	Buffalo & Susquehanna	253	6,251
—	60	Detroit, Toledo & Ironton	463	4,776
—	50	Wheeling & Lake Erie	512	15,971
—	96	Ann Arbor	290	6,001
			14,586 Total	$23,924 Average


Map 5
COAST LINE
LOUISVILLE & NASHVILLE SYSTEM
COLOR
NO.
NAME
MILEAGE OPERATED
GROSS EARNINGS PER MILE
76 Atlantic Coast Line 4,710 $ 7,5[illegible]
73 Louisville & Nashville 5,0[illegible]2 11,991
[illegible] Nashville Chattanooga & St. Louis 1,2[illegible] 10,232
96 Charleston & Western Carolina 342 6,431
100 Louisville Henderson & St. Louis 200 8,267
[illegible] Georgia Railroad 330 9,0[illegible]
86 [illegible] 3[illegible] 3,6[illegible]
33 [illegible] Terre Haute & Southeastern 376 5,112
[illegible] Tennessee Central 294 [illegible]
13 [illegible] Total
$ 9,2[illegible] Average
WASH.
MONT.
N.DAK.
MINN.
OREGON
IDAHO
S.DAK.
WYO.
WIS.
MICH.
N.Y.
VT.
N.H.
ME.
MASS.
CONN.
R.I.
IOWA
NEBR.
PENN.
N.J.
NEV.
UTAH
COLO.
ILL.
IND.
OHIO
CALIF.
KANS.
MO.
W.VA.
VA.
MD.
DEL.
ARIZ.
N.MEX.
OKLA.
ARK.
N.CAR.
S.CAR.
GA.
ALA.
MISS.
TEXAS
LA.
L.SUPERIOR
L.MICHIGAN
L.HURON
L.ERIE
L.ONT.
Chicago
Terre Haute
St.Louis
Louisville
Cincinnati
Frankfort
Memphis
Birmingham
Atlanta
Columbia
Augusta
Macon
Montgomery
Charleston
Port Royal
Savannah
Brunswick
Jacksonville
Mobile
Orleans
Tampa
Wilmington
Norfolk
PACIFIC OCEAN
ATLANTIC OCEAN
GULF OF MEXICO
CUBA
Scale of Statute Miles

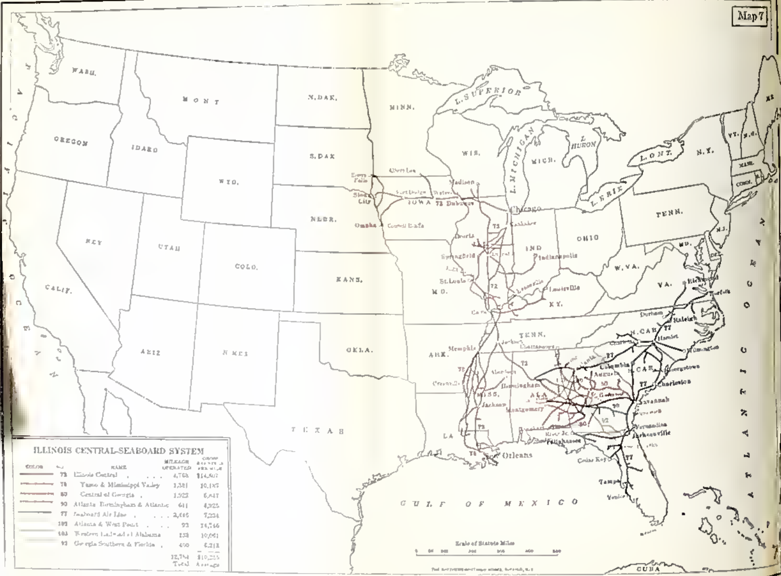
Map 6



SOUTHERN SYSTEM

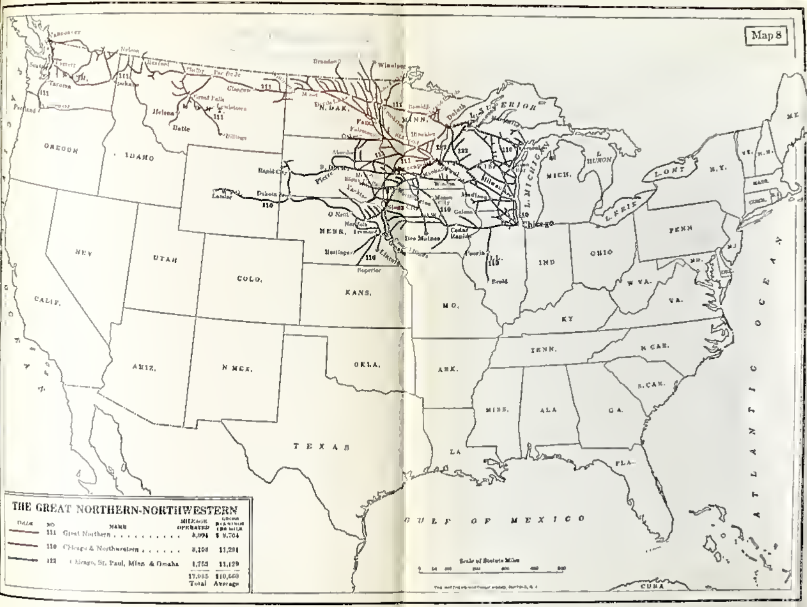
COLOR	NO.	NAME	MILEAGE OPERATED	GROSS EARNINGS PER MILE
—	71	Southern	7,012	$10,256
—	81	Mobile & Ohio	1,135	10,487
—	66	Alabama Great Southern	310	17,956
—	104	Southern R. R. in Mississippi	280	3,033
—	83	Cincinnati, New Orleans & Tex. Pac.	337	32,565
—	67	New Orleans & Northeastern	204	18,940
—	84	*Chicago, Indianapolis & Louisville	534	11,734
—	98	Alabama & Vicksburg	143	11,924
—	108	Vicksburg, Shreveport & Pacific	171	9,727
—	44	Florida East Coast	741	9,720
—	97	New Orleans Great Northern	285	5,922
—	94	Gulf & Ship Island	308	6,038
			11,486 Total	$10,979 Average

* Majority of stock owned by Louisville & Nashville R. R. and Southern Ry.



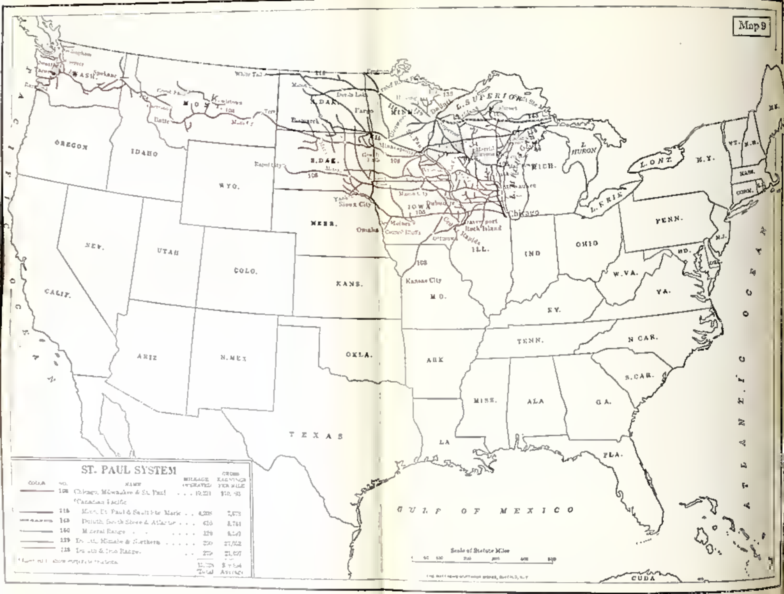
ILLINOIS CENTRAL-SEABOARD SYSTEM

COLOR	No.	NAME	MILEAGE OPERATED	GROSS EARNINGS PER MILE
—	73	Illinois Central	4,763	$14,507
—	78	Yazoo & Mississippi Valley	1,381	10,107
—	83	Central of Georgia .	1,923	6,947
—	90	Atlanta, Birmingham & Atlantic	641	4,925
—	77	Seaboard Air Line	2,615	7,234
—	103	Atlanta & West Point . . .	93	14,746
—	104	Western Railroad of Alabama	133	10,061
—	92	Georgia Southern & Florida .	400	6,212
			12,754 Total	$10,255 Average



THE GREAT NORTHERN-NORTHWESTERN

DASH	NO.	NAME	MILEAGE OPERATED	GROSS EARNINGS PER MILE
▬	111	Great Northern	8,094	$ 9,704
▬	110	Chicago & Northwestern	8,108	11,291
▬	112	Chicago, St. Paul, Minn. & Omaha	1,753	11,129
			17,955 Total	$10,660 Average

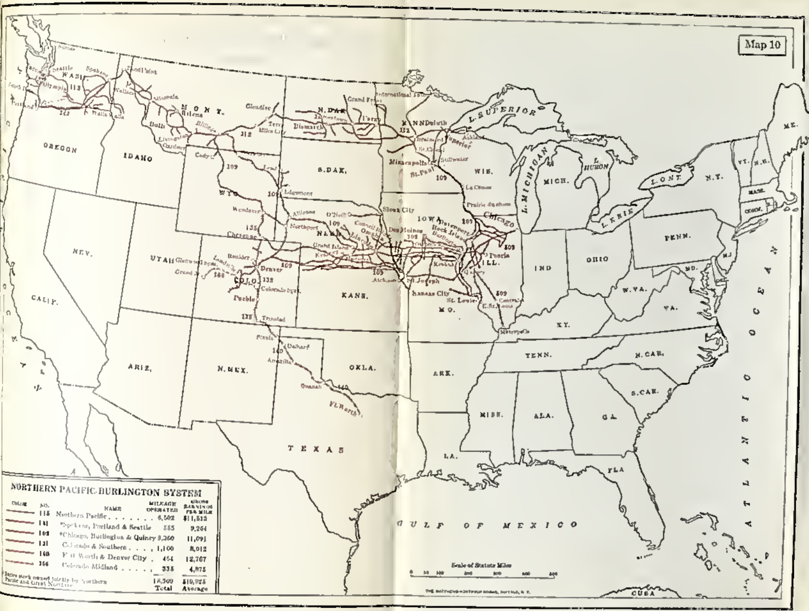


ST. PAUL SYSTEM

COLOR	NO.	NAME	MILEAGE OPERATED	GROSS EARNINGS PER MILE
▬	108	Chicago, Milwaukee & St. Paul	10,221	$10,593
		*Canadian Pacific		
▬	116	Minn. St. Paul & Sault Ste. Marie	4,208	7,073
▬	143	Duluth, South Shore & Atlantic	610	8,741
▬	160	Mineral Range	126	8,[illegible]
▬	129	Duluth, Missabe & Northern	250	27,052
▬	128	Duluth & Iron Range	270	21,077
			15,[illegible] Total	$ [illegible] Average

*[illegible]

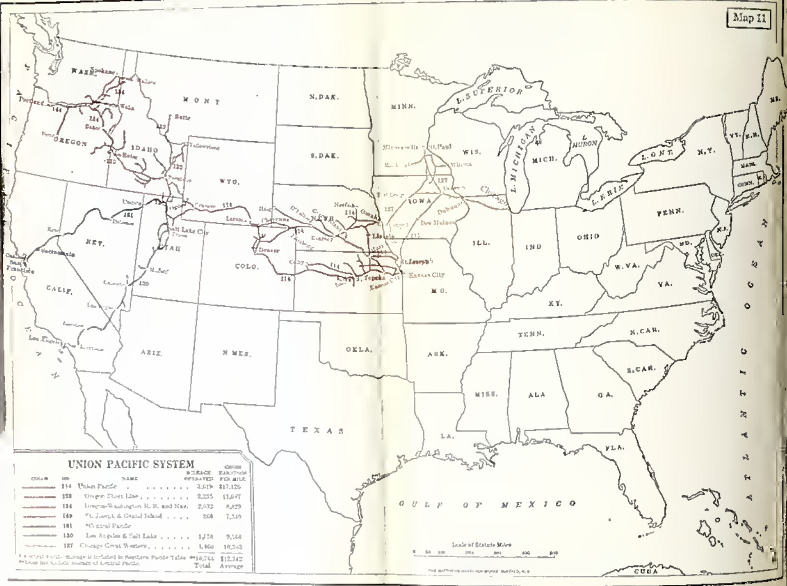
Map 10



NORTHERN PACIFIC-BURLINGTON SYSTEM

COLOR	NO.	NAME	MILEAGE OPERATED	GROSS EARNINGS PER MILE
—	113	Northern Pacific	6,502	$11,513
—	141	*Spokane, Portland & Seattle	555	9,264
—	109	*Chicago, Burlington & Quincy	9,360	11,091
—	135	Colorado & Southern	1,100	8,012
—	140	Fort Worth & Denver City	454	12,767
—	146	Colorado Midland	335	4,875
			18,306 Total	$10,925 Average

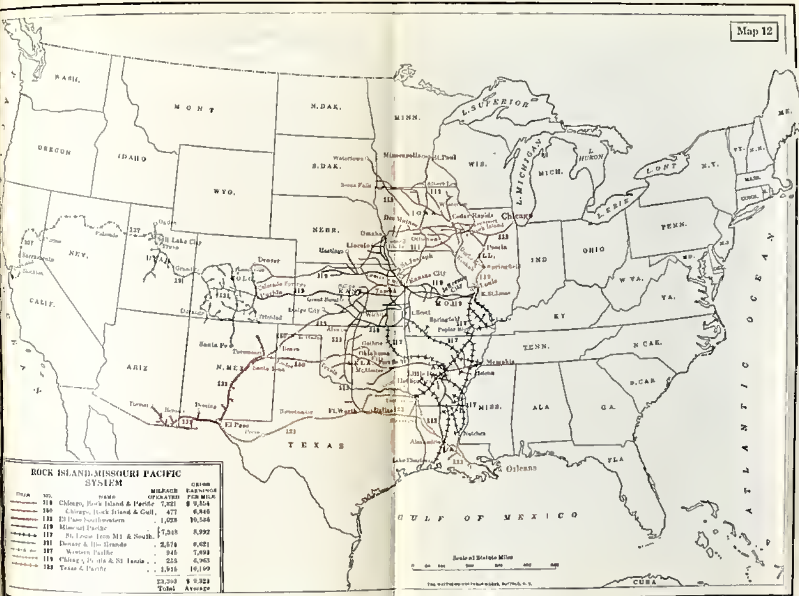
*Entire stock owned jointly by Northern Pacific and Great Northern



UNION PACIFIC SYSTEM

COLOR	NO.	NAME	MILEAGE OPERATED	GROSS EARNINGS PER MILE
——	114	Union Pacific	3,619	$17,126
——	128	Oregon Short Line	2,235	11,647
——	134	Oregon-Washington R. R. and Nav.	2,032	6,829
——	149	St. Joseph & Grand Island	258	7,310
——	161	*Central Pacific		
——	130	Los Angeles & Salt Lake	1,158	9,144
——	127	Chicago Great Western	1,460	10,343
			**10,744 Total	$12,342 Average

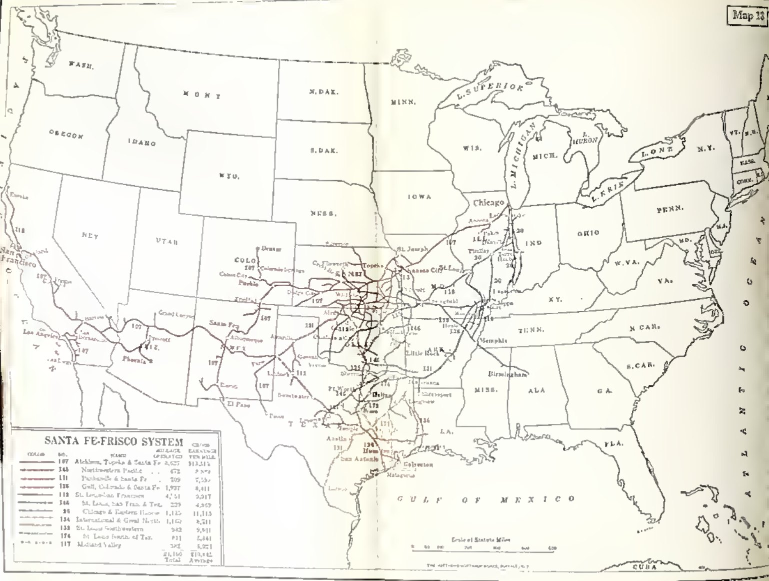
* Central Pacific mileage is included in Southern Pacific Table.
** Does not include mileage of Central Pacific.



ROCK ISLAND-MISSOURI PACIFIC SYSTEM

LINE	NO.	NAME	MILEAGE OPERATED	GROSS EARNINGS PER MILE
—	110	Chicago, Rock Island & Pacific	7,821	$ 9,454
—	160	Chicago, Rock Island & Gulf	477	6,846
—	131	El Paso Southwestern	1,028	10,584
—	119	Missouri Pacific	7,348	8,992
—+—+—	117	St. Louis Iron Mt. & South.		
—	111	Denver & Rio Grande	2,576	6,621
- - -	137	Western Pacific	946	7,893
—+—+—	115	Chicago, Peoria & St. Louis	253	4,963
—+—+—	121	Texas & Pacific	1,916	10,169
			22,393 Total	$ 9,321 Average

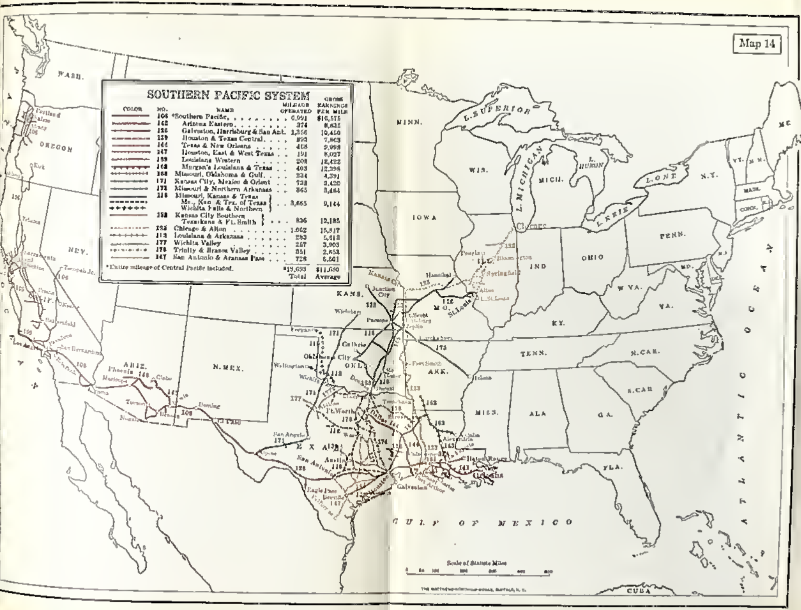
Map 13



SANTA FE-FRISCO SYSTEM

COLOR	NO.	NAME	MILEAGE OPERATED	GROSS EARNINGS PER MILE
▬▬▬	107	Atchison, Topeka & Santa Fe	8,027	$12,215
▬▬▬	145	Northwestern Pacific	472	8,879
▬▬▬	111	Panhandle & Santa Fe	909	7,557
▬▬▬	136	Gulf, Colorado & Santa Fe	1,937	8,411
▬▬▬	112	St. Louis-San Francisco	4,751	9,317
▬▬▬	165	St. Louis, San Fran. & Tex.	229	4,969
▬▬▬	26	Chicago & Eastern Illinois	1,135	11,115
▬▬▬	134	International & Great North.	1,162	8,511
▬▬▬	132	St. Louis Southwestern	942	9,911
▬▬▬	174	St. Louis South. of Tex.	811	5,441
‐ ‐ ‐	117	Midland Valley	372	5,021
			21,160 Total	$10,042 Average

Map 14



SOUTHERN PACIFIC SYSTEM

COLOR	NO.	NAME	MILEAGE OPERATED	GROSS EARNINGS PER MILE
━	106	*Southern Pacific	6,991	$16,575
┿	162	Arizona Eastern	374	8,625
┿	126	Galveston, Harrisburg & San Ant.	1,356	10,450
┅	139	Houston & Texas Central	892	7,863
━	144	Texas & New Orleans	468	9,998
┿	147	Houston, East & West Texas	191	8,027
┿	159	Louisiana Western	208	12,422
┳	142	Morgan's Louisiana & Texas	403	12,398
┼	168	Missouri, Oklahoma & Gulf	234	4,391
┿	171	Kansas City, Mexico & Orient	738	3,420
┿	172	Missouri & Northern Arkansas	365	3,464
━ ┅ ✦	116	Missouri, Kansas & Texas Mo., Kan. & Tex. of Texas Wichita Falls & Northern	3,865	9,144
━	152	Kansas City Southern Texarkana & Ft. Smith	836	12,188
┅	133	Chicago & Alton	1,052	15,817
┼	113	Louisiana & Arkansas	283	5,612
┿	177	Wichita Valley	257	3,903
┄	178	Trinity & Brazos Valley	351	2,652
━	167	San Antonio & Aransas Pass	728	6,601
			*19,693 Total	$11,680 Average

*Entire mileage of Central Pacific included.

MAP 14

SOUTHERN PACIFIC SYSTEM